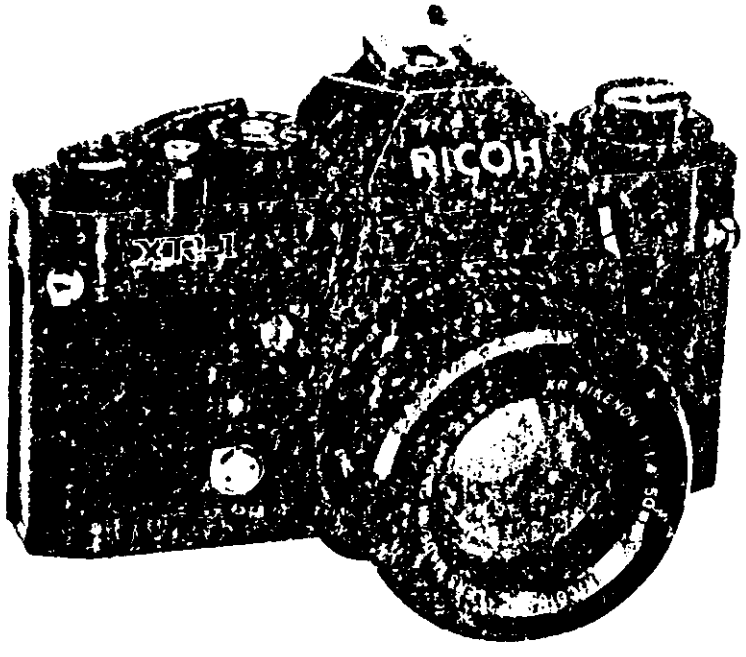

REPAIR MANUAL AND REPAIR PARTS

RICOH XR-1

SEARS KS 1000

RICOH COMPANY LTD

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SPECIFICATIONS

CAMERA TYPE	Ricoh XR-1 35 mm SLR with metal focal plane shutter.
FILM FORMAT	24 × 36 mm
STANDARD LENSES	50 mm XR Rikenon f/1.4 (Multi-coated), 6 groups 7 elements 50 mm XR Rikenon f/1.7 (Multi-coated), 5 groups 6 elements 50 mm XR Rikenon f/2.0, 5 groups 6 elements Filter size: 52 mm screw-in type
LENS MOUNT	"K" type bayonet with 65° rotating angle.
SHUTTER	Vertically moving Copal FC-523 metal focal plane shutter with speeds from 1 to 1/1000 sec. plus B.
VIEWFINDER	Fixed eye-level pentaprism. F-stop, Shutter speeds, "B" (Bulb), Exposure meter needle (also acts as battery checker), Shutter speed indicator and battery check mark visible. Viewing magnification 0.88X. Field of view covers 93% of actual picture area.
FOCUSING	Diagonal Split-image spot in microprism band surrounded by Fresnel field.
EXPOSURE METER	Three CdS photocells TTL full open metering for average light reading coupled to shutter speeds, film speeds and f-stops.
EXPOSURE COUPLING RANGE	EV3 ~ 18 (ASA 100 film with 50 mm f/1.4 lens)
FILM SPEED RANGE	ASA 12 ~ 3200 (DIN 12 ~ 36)
EXPOSURE METER POWER SUPPLY	Two 1.5V silver-oxide batteries (JIS G13, Mallory MS76, Eveready S76 or equivalent).
FLASH SYNCHRONIZATION	X Synchronization for electronic flash unit at "B" and 1 sec. to 1/125 sec.
FLASH TERMINAL	"X" flash terminal. "X" contact (with electronic shock prevention mechanism) on hot shoe for cordless electronic flash unit.
FILM LOADING	Multi-slit easy loading.
FILM WIND	Single stroke film advance lever with 135° winding angle (40° play).
FILM SIZE AND CAPACITY	35 mm perforated film in 12, 20, 24 or 36 exposures.
FILM REWIND	Film rewind crank by pressing film rewind button on base of camera.
EXPOSURE COUNTER	Additive, automatic resetting.
DIMENSIONS	139.9 (width) × 91.3 (height) × 48.6 (depth) mm (Body only)
WEIGHT	550g (Body only)

Following tool sets are recommended for dis-reassembling.

1) For the ME-BUTTON HOLDER (sketch No. 13 on page 22).
2) For the FILM WIND UP LEVER NUT (sketch No. 2 on page 22).
3) For the FINDER COVER NUT (sketch No. 6 on page 22).
4) For the SHUTTER SPEED DIAL SCREW (sketch No. 7 on page 22).
5) For the ASA PLATE NUT (sketch No. 23 on page 22).
6) For the ASA BUTTON NUT (sketch No. 20 on page 22).
7) For the SYNCHRO SOCKET (sketch No. 26 on page 22).

1. DISASSEMBLING OF MAJOR COMPONENT PARTS

1. Finder cover (see the sketch No. 15 on page 22)

1) Remove the FILM WIND UP LEVER SCREW (sketch No. 1).
2) When the FILM WIND UP LEVER NUT (sketch No. 2) is removed, sketches No. 3 ~ 5 are automatically removed.

   NOTE:

   The FILM WIND UP LEVER NUT is loosened when turned counter-clockwise. (reversing screw)
3) Remove the FINDER COVER NUT (sketch No. 6).
4) When the SHUTTER SPEED DIAL SCREW (sketch No. 7) is removed, the SHUTTER SPEED PLATE (sketch No. 8) and the SHUTTER SPEED DIAL (sketch No. 9) automatically come off.
5) Take off the SCREW (sketch No. 10) and the RELEASE HOLDER (sketch No. 11).
6) Remove the ME BUTTON HOLDER (sketch No. 13).
7) Remove the SYNCHRO SOCKET (sketch No. 26).
8) Remove the ASA BUTTON NUT (sketch No. 20).
9) Remove the REWINDING DISK NUT (sketch No. 21) and the REWINDING DISK (sketch No. 22).
10) Remove the ASA PLATE NUT (sketch No. 23), then the ASA PLATE (sketch No. 24) and the ASA DIAL (sketch No. 25) will come off.
11) Take off two SCREWS (sketch No. 27).

2. Bottom cover (see the sketch No. 28 on page 30).

1) Take off five SCREWS (sketch No. 29).

3. Shutter dial base plate (see the sketch No. 26 on page 26)

1) Take off three SCREWS (sketch No. 1).

   NOTE:

   Take care not to lose the FILM WIND UP LEVER CAM (sketch No. 37) and the RELEASE LOCK CAM (sketch No. 38).

4. Prism frame (see the sketch No. 12 on page 26)

1) Detach two soldered portions of the LEAD WIRE (green) for the X contact.
2) Detach the soldered portion of the LEAD WIRE (black) for grounding the main body.
3) Detach the soldered portion of the LEAD WIRE (orange) coming from the battery case.
4) Detach the soldered portion of the LEAD WIRES (black, red) coming from the meter.

5) Detach the soldered portions of the LEAD WIRES (blue, pink) coming from the resistor plate.
6) Take off four SCREWS (sketch No. 49 and 50 on page 24) as well as the EYEPIECE FRAME (sketch No. 48) on page 24.
7) Take off three SCREWS (sketch No. 1) as well as ASA BASE PLATE ASS'Y (sketch No. 2) and ASA CONTACT ASS'Y (sketch No. 3).
8) Take off the SCREW (sketch No. 5)
9) Detach the soldered portion of ASA RESISTOR PLATE ASS'Y (sketch No. 6).
10) Take off two SCREWS (sketch No. 3 on page 24).
11) Detach the soldered portions of the POWER CONTACT (sketch No. 17) and the CHECKER CONTACT (sketch No. 18).
12) Carefully remove the SPRING HOOK ASS'Y (sketch No. 19).
13) Carefully remove the PRISM COVER (sketch No. 4 on page 24) and the CdS CIRCUIT BOARD ASS'Y (sketch No. 46 on page 24), which form a solid unit.
14) Remove the PRISM (sketch No. 7 on page 24).
15) Take off the SCREW (sketch No. 4).
16) Take off two SCREWS (sketch No. 10) and carefully remove the PRISM FRAME (sketch No. 12).

5. Exposure meter (see the sketch No. 15 on page 26)

1) Remove the PRISM FRAME (Regarding the sequence, see ITEM 4 on page 3).
2) Take off two SCREWS (sketch No. 10).

6. Fresnel lens (see the sketch No. 14 on page 24)

1) Remove the PRISM FRAME (Regarding the sequence, see ITEM 4 on page 3).
2) Take off two SCREWS (sketch No. 9).

NOTE:
Take care not to lose the SPRINGS A, B (sketch No. 10, 11).

3) Carefully remove the CONDENSER LENS (sketch No. 12).
4) Carefully remove the FRESNEL LENS.

7. Mirror box (see the sketch No. 1 on page 32)

1) Disassemble the FINDER COVER (Regarding the sequence, see ITEM 1 on page 3).
2) Disassemble the BOTTOM COVER (Regarding the sequence, see ITEM 2 on page 3).
3) Disassemble the SHUTTER DIAL BASE PLATE (Regarding the sequence, see ITEM 3 on page 3).
4) Disassemble the PRISM FRAME (Regarding the sequence, see ITEM 4 on page 3).
5) Peel off the LEATHERS (sketch No. 6, 18 on page 30) on both sides of the front.
6) Take off four SCREWS (sketch No. 21 on page 24), the SCREW (sketch No. 22) and another SCREW (sketch No. 30 on page 30).

8. Shutter (see the sketch No. 1 on page 30)

1) Disassemble the MIRROR BOX (Regarding the sequence, see ITEM 7 above).

2. ASSEMBLING

1. Mirror box (sketch No. 1 on page 32)

1) Set the SELF-TIMER to its regular position.
2) Carefully set the mirror box in the main body.
3) Set it so that the RELEASE LEVER becomes as indicated by a circle in Fig. 13.
4) After ascertaining that the mirror box has been completely mounted, fasten it to the main body with five SCREWS (sketch No. 21 and 22 on page 24).
5) Wind the FILM WIND UP LEVER, and confirm that the shutter works properly.
6) Set the SELF-TIMER LEVER, and confirm that it works surely and that the shutter releases.

2. Prism frame (sketch No. 12 on page 26)

1) Set the shutter speed dial to BULB. (Fig. 1 indicates bulb position.)
2) Assemble the PRISM FRAME (sketch No. 12) on the main body.

How to assemble

1) Set the INDICATOR CAM to position B as shown in Fig. 2. (Figure 2 indicates the BULB position.)
2) Interlock the EXPOSURE METER, SPEED CONNECTION LEVER and the SPEED INDICATOR CAM, as in the case of parts A and B in Fig. 5 and engage the gears of the SPEED INDICATOR CAM and the SHUTTER (Fig. 1).

NOTE:

1) In case the shutter GEAR (Fig. 1) and the SPEED INDICATOR CAM (Fig. 5) are not engaged correctly, slightly raise the SPEED INDICATOR CAM and re-engaged them.
2) After re-engagement, confirm that the position of the SPEED CONNECTION LEVER is at the position A, B as shown in Fig. 5.
3) Carefully check the positions of all lead wires.

How to ascertain

Hold down the PRISM FRAME, turn the SHUTTER DIAL (B in Fig. 2), while peering through the finder, and check that the SHUTTER SCALE NEEDLE (green) works properly.

3) If it functions correctly, tighten SCREWS (sketch No. 10).
4) After winding, check that the shutter speed shifts to bulb position when it is released.

3. Shutter dial base plate (sketch No. 26 on page 26)

1) Check that the spring of the POWER CONTACT ASS'Y (sketch No. 39) is hooking the SPRING HOOK ASS'Y (sketch No. 19).
2) Set the shutter dial to the bulb position. (Fig. 3 shows the bulb position (rear side).)
3) Joint part A (Fig. 3) of the shutter dial with part B of the SPEED INDICATOR CAM. (Fig. 2)

NOTE:

1) In case the difference of the shutter dial bulb position and that of the SPEED INDICATOR CAM bulb is one pitch or more, follow the instructions of NOTE (2)-(1) (page 5), and re-engage them.
2) In case there is a slight difference in the position of the shutter dial bulb and that of the speed indicator cam bulb, adjust by loosening the screw of A in Fig. 1, turn the eccentric screw of B.
   (Do not forget to tighten screw A after this adjustment.)
3) Fig. 4 shows the engagement between the shutter GEAR and the SPEED INDICATOR CAM.

4) When the shutter is released after winding, check that the shutter shifts to bulb position.
5) After confirmation, tighten SCREW (sketch No. 1 on page 26).

4. CdS circuit board ass'y (sketch No. 46 on page 24)

1) Set the PRISM (sketch No. 7).
2) Mount the CdS circuit board ass'y which is solid with the PRISM COVER (sketch No. 4).
3) After confirming the wiring positions of all lead wires, tighten two SCREWS (sketch No. 3).
4) Solder all lead wires.
5) Tighten SCREWS (sketch No. 5 on page 26)

5. ASA base plate (sketch No. 2 on page 26) (see Fig. 6)

1) Mount the ASA CONTACT ASS'Y (sketch No. 3) on the ASA RESISTOR PLATE ASS'Y (sketch No. 6).
2) Attach the ASA BASE PLATE (sketch No. 2). When attaching, joint the part indicated by arrow A of the ASA BASE PLATE with that indicated by arrow B of the ASA CONTACT ASS'Y (sketch No. 3) and attach the ASA BASE PLATE.
3) Tighten three SCREWS (sketch No. 1), while paying attention to the wiring of all lead wires.

6. ASA dial (sketch No. 25 on page 22) (see Fig. 6)

1) Attach the FINDER COVER.
2) Superpose the hole of the BASE PLATE A upon the third hole of the ASA BASE PLATE (sketch No. 2 on page 26), either on the left or right side.
   Then insert PIN C of the ASA DIAL into the holes of the BASE PLATES A and B (Fig. 6).

   NOTE:
   When the attached position is not correct, meter sensitivity will be adversely affected.
3) Join the arrow indication of the ASA DIAL (sketch No. 25 on page 22) with that of the ASA PLATE (sketch No. 24) indications.
4) After attaching the ASA PLATE NUT (sketch No. 23), check the working of the ASA DIAL and the positions of the scale of ASA12-3200.

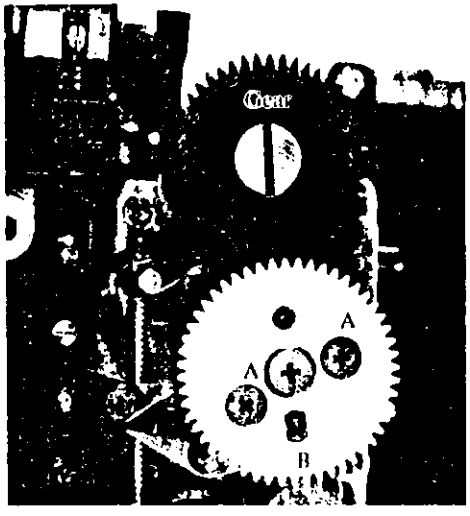


Fig. 1

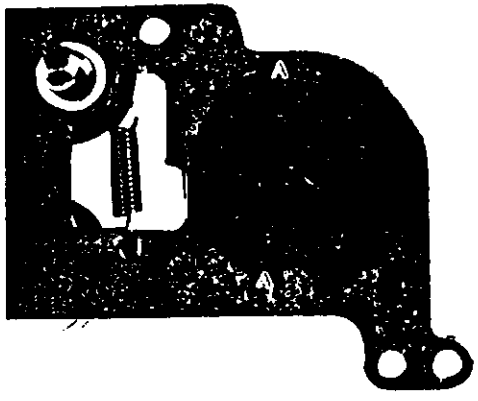


Fig. 3

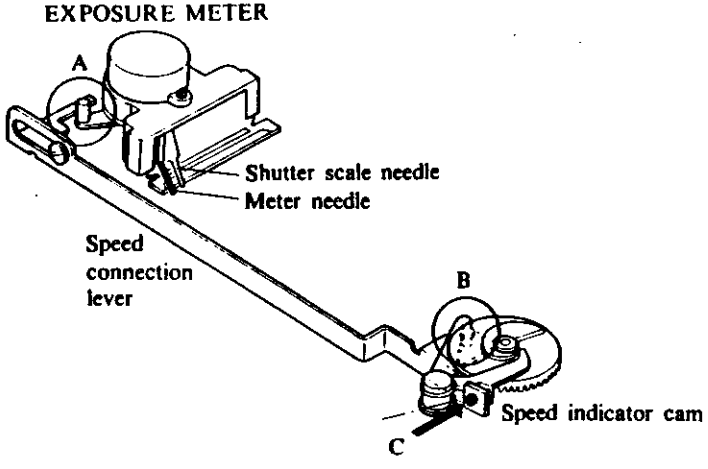


Fig. 5

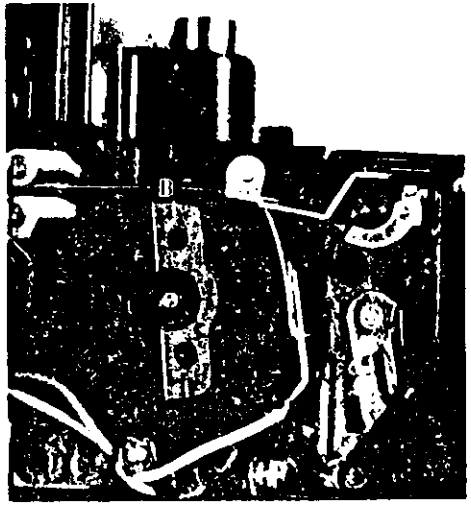


Fig. 2

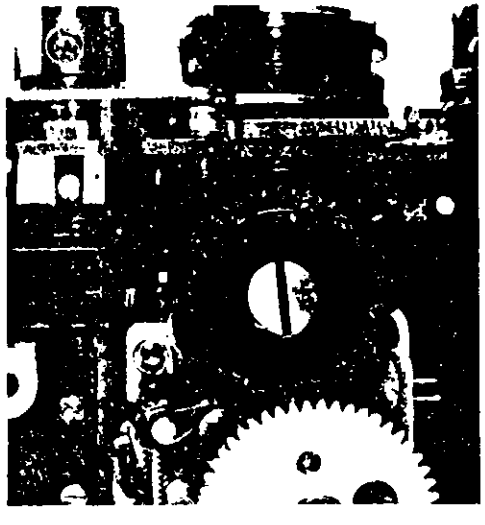


Fig. 4

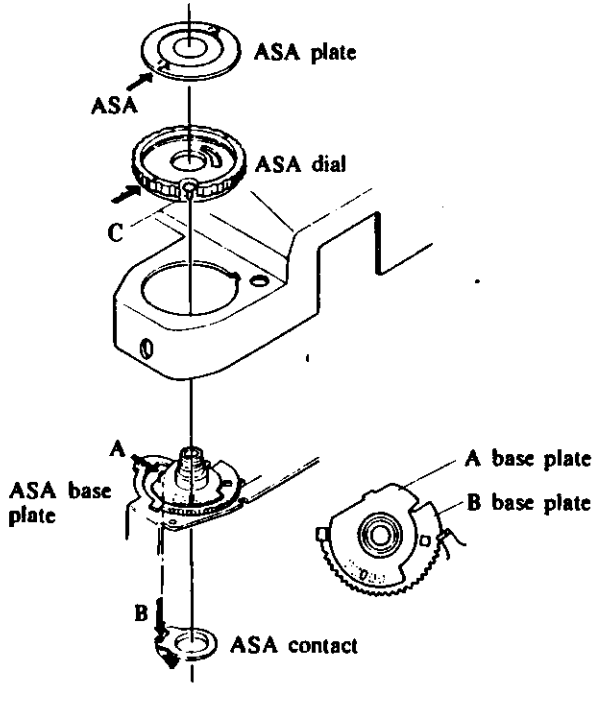


Fig. 6

3. GENERAL MECHANISM

1. Quick return mechanism (see Fig. 7, 8 and 9)

1) When the wind up lever is wound, the shutter is set.
At the same time, No. 1 moves in the arrow direction and catches No. 6.
Then, No. 2 is set in No. 4 while No. 3 is set in No. 5. (Fig. 7)

2) When the release button is depressed, No. 7 acts, pushing No. 5.
Next, No. 3 slips off No. 5 and kicks No. 4 and the mirror rises.
No. 2 slips off No. 4 and No. 2 actuates Nos. 8, 9, 10, 11 and 12, and No. 11 releases the shutter. (Fig. 8)

3) The rear blade lever of the shutter kicks No. 13 when the vanes are closed.
No. 14 interlocked with No. 13 actuates No. 6 which then releases No. 1.
No. 2 and No. 3 operate simultaneously. No. 2 releases Nos. 8, 9, 10, 11 and 12, and the mirror returns to its original position.

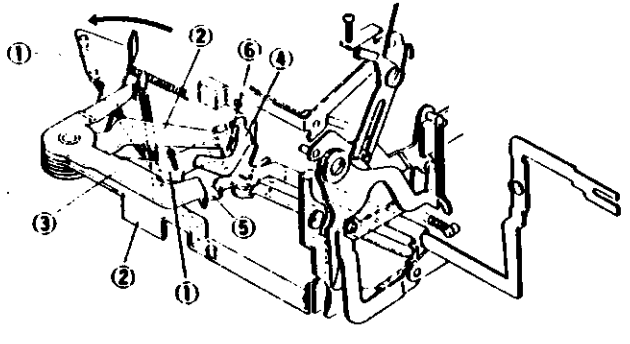


Fig. 7

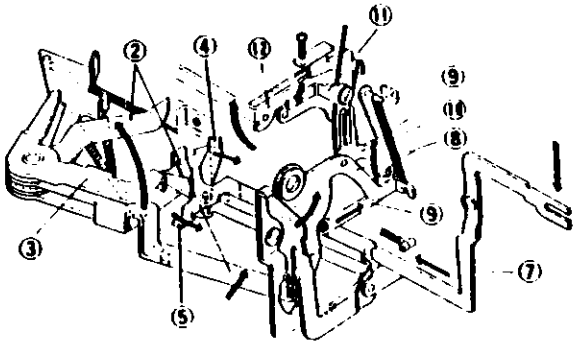


Fig. 8

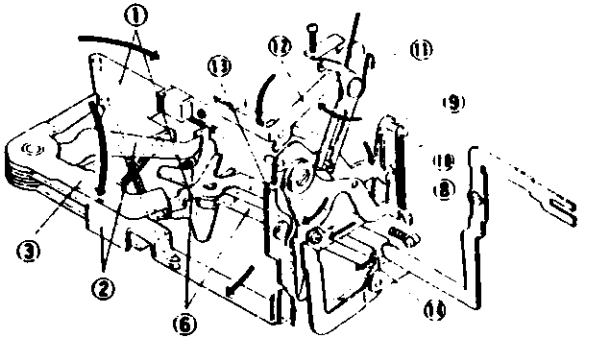


Fig. 9

2. Multi exposure mechanism (Fig. 10 and 11)

1) Fig. 10 shows the condition when ME button has not been depressed.
When the film wind up lever is wound under such condition, the winding clutch lever catches the part of gear A (5) marked with an arrow, and turns the gear.
At the same time, the sprocket interlocked with the gear turns and advances the film.

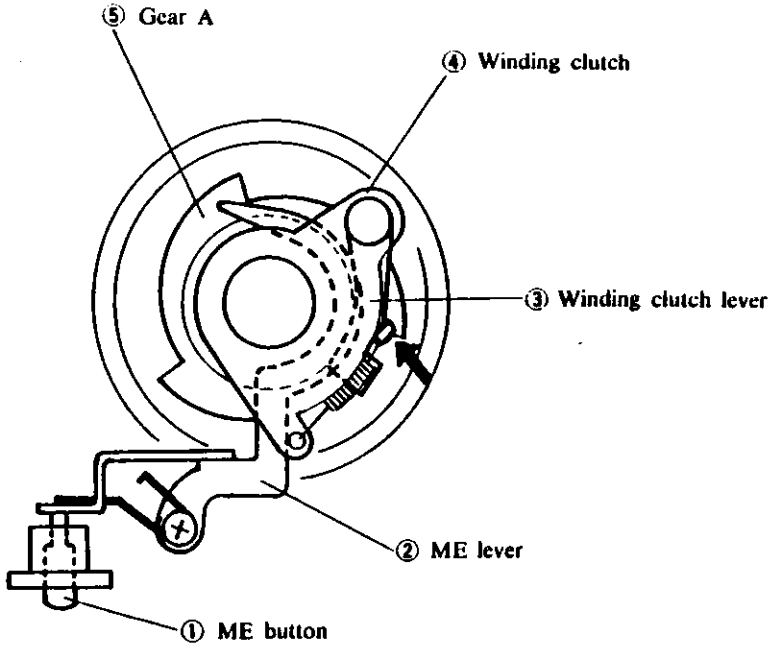


Fig. 10

2) Fig. 11 indicates the condition in which the ME button has been depressed. (Multi exposure)
When ME button (1) is pressed, ME lever (2) moves in the arrow direction, and pushes winding clutch lever (3).
When the film wind up lever is wound under this condition, as the winding clutch lever (3) does not catch gear A (5), only winding clutch (4) operates, while gear A (5) does not.
The sprocket, therefore, does not rotate, the film is not advanced and multiple exposure is realized.

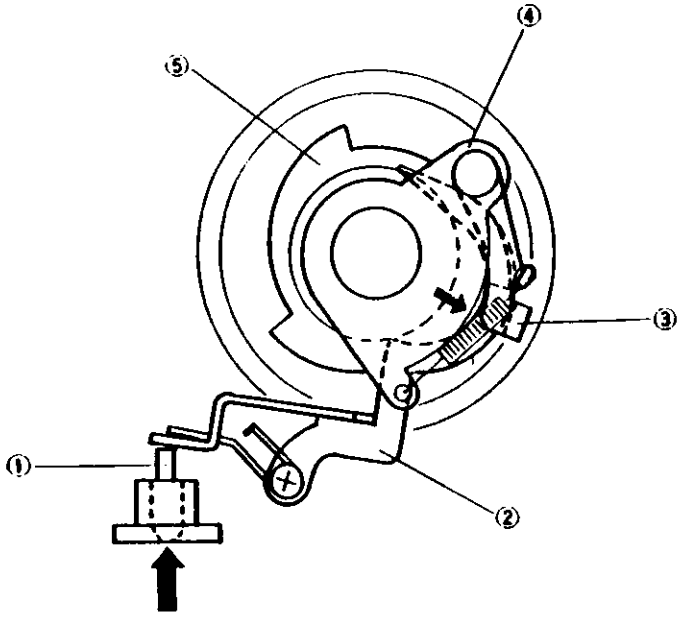


Fig. 11

3. Light measuring mechanism (Fig. 12)

The camera has a built-in TTL system interlocking exposure meter with three CdS cells installed on both sides and on top of the eye lens.
The applicable film sensitivity is ASA 12 ~ 3200, the interlocking function range of the exposure meter is EV3 ~ 18 (ASA 100) and the power source is a silver-oxide battery which is contained in the battery box on the bottom of the body.

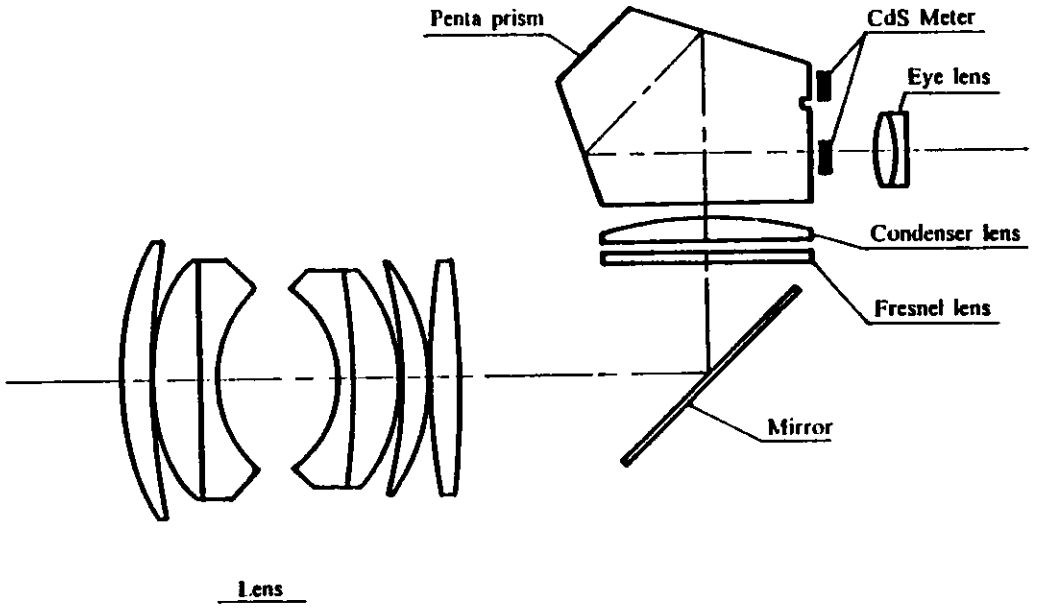


Fig. 12

4. ADJUSTMENT

1. Release stroke

When exchanging the mirror box or when it is necessary to adjust the release stroke, proceed as follows:

1) Adjust by changing the width of the release lever of Fig. 13.
2) The scope of adjustment of the release stroke is indicated in Fig. 14.

2. Film wind up (see Fig. 15)

When changing the film wind up shaft ass'y or related parts, check and make necessary adjustments.

How to adjust:

Fully wind the film wind up lever, and adjust with SCREW A so that there is a clearance of 0.05 ~ 0.15 mm after the Nail LEVER (sketch No. 35 on page 30) slips off from the WIND UP SHAFT ASS'Y (sketch No. 46 on page 30). (In fully wound condition.)

NOTE:

1) If it is not adjusted to the prescribed clearance after the NAIL LEVER (sketch No. 35) slips off, the film wind up lever may occasionally fail to return.
2) When the clearance exceeds the prescribed limit after the NAIL LEVER slips off, the interval between the photographic frames on the film will become uneven.

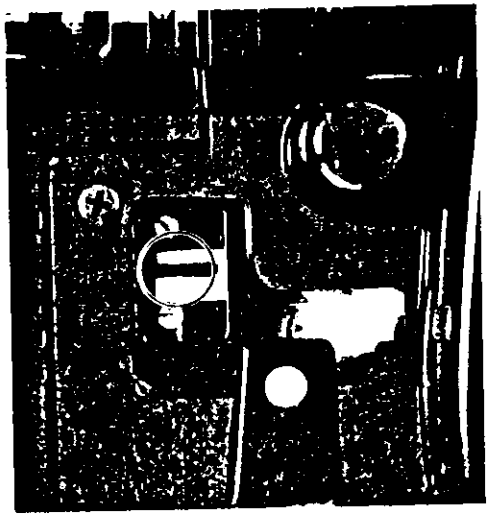


Fig. 13

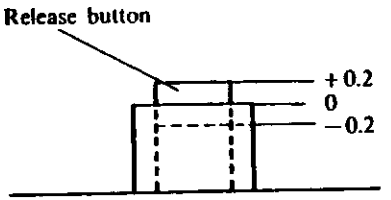


Fig. 14

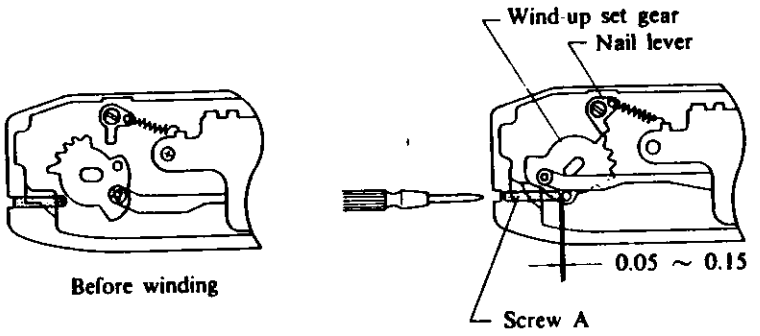


Fig. 15

3. Sprocket reverse stop (see Fig. 16)

In case the relative position between the film perforation and sprocket teeth becomes uneven, or when related parts have been exchanged, check and make necessary adjustments.

How to adjust:
When the film wind up lever is wound and set, turn the ECCENTRIC SHAFT so that the STOPPER of the lever A enters the bottom of the GEAR B. C, regardless of the minimum and maximum windings.
After finishing adjustment, tighten the SCREW.

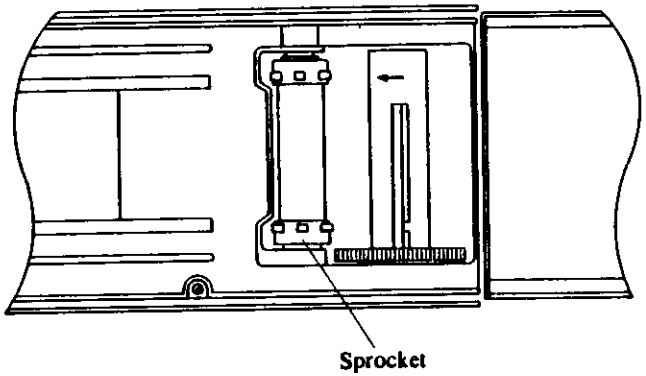
4. 45° mirror

When changing the mirror or mirror box, check and make necessary adjustments.

1) For a 45° mirror adjustment, use a collimeter, and set the camera as shown in Fig. 17.
2) Adjust the chart in the center of the collimeter frame.
3) Adjust the 45° angle of the mirror with SCREWS A as shown in Fig. 18.

NOTE:

1) Absolutely refrain from turning the SCREWS A of Fig. 18, unless the mirror or the mirror box has been exchanged.
2) In case the mirror angle is not precisely 45°, a discrepancy between the image viewed through the finder and the image projected upon the film will occur.
3) Finder will become out of focus.
4) The screw for adjusting the mirror at 45° is not that for adjusting the finder focus, so take this fully in mind.



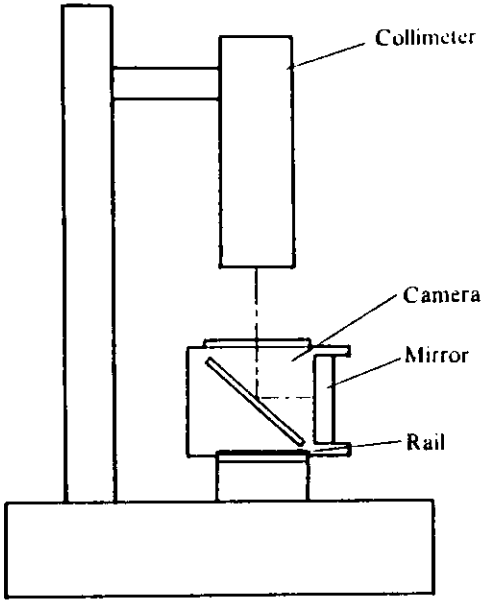


Fig. 17

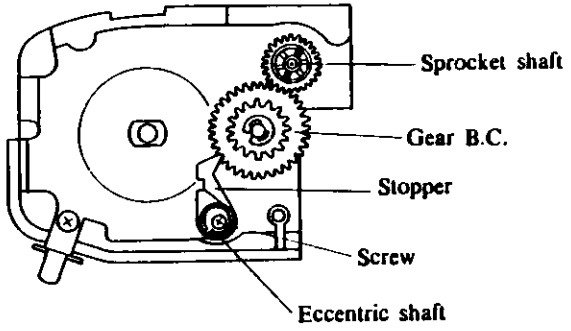


Fig. 16

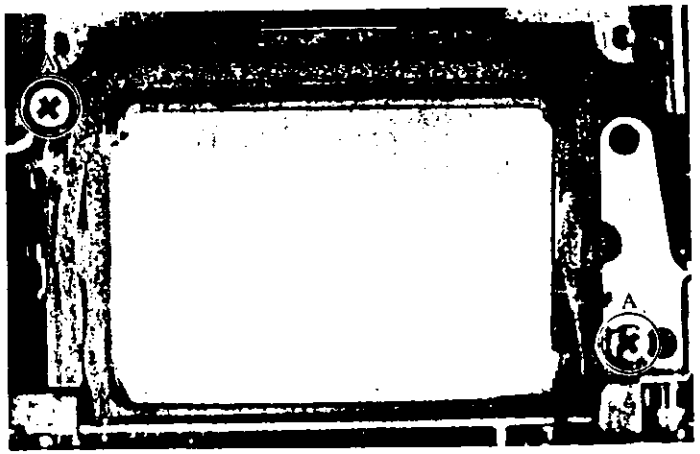


Fig. 18

5. Focusing of finder

When finder is out of focus.
Remove the **BOTTOM COVER** and adjust with SCREW shown by an arrow in Fig. 19.

How to adjust.

1) When finder focus is too long, turn clockwise. (Tightening direction)
2) When finder focus is too short, turn counter-clockwise. (Loosening direction)

Sequence of checking when finder is out of focus.

1) Check whether the lens unit correctly focuses or not.
2) Check whether the body back is set within the prescribed limits or not.
3) After checking the above problems, adjust the focus of the finder.

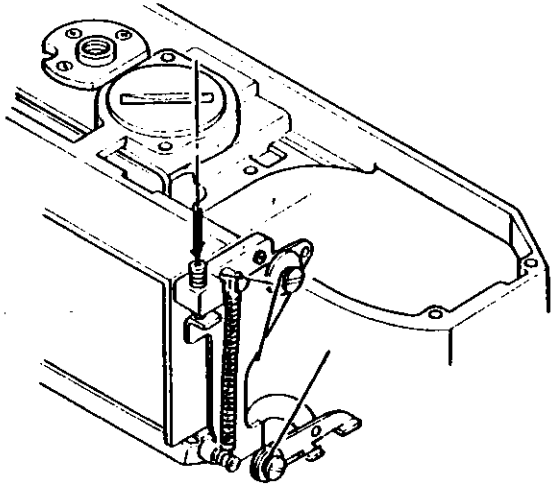


Fig. 19

6. F stop indication (see Fig. 20)

Adjust F stop indication, when the F stop indication window inside the finder is out of place (outside the prescribed limit).

How to adjust.

1) Install the lens. (Any standard lens will do.)
2) Set the F stop of the lens to 5,6.
3) Look through the finder, and turn F stop indication adjusting SCREW in Fig. 20 so that the F stop (5, 6) appearing in the F stop indication window of Fig. 21 comes to the center.
   a) When the figure slants up on its right side, tighten the right adjusting SCREW B.
      When the figure slants up on its left side, tighten the left adjusting SCREW A.
   b) When the figure slants down on its right side, loosen right adjusting SCREW B.
      When it slants down on its left side, loosen left adjusting SCREW A.

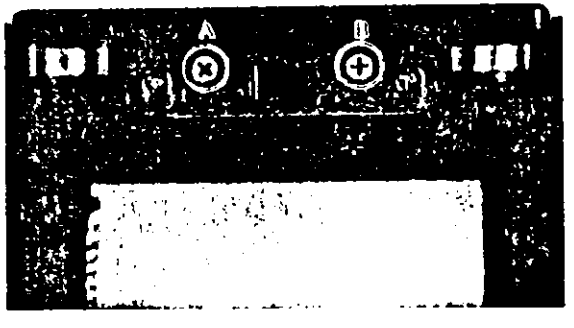


Fig. 20

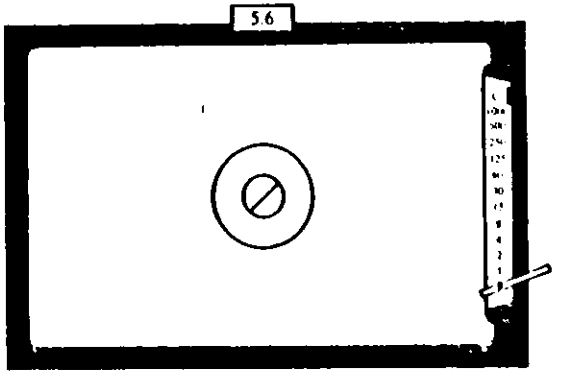


Fig. 21

7. Meter switch ON, OFF

1) When the film wind up lever is set to locking position, power is turned to OFF. (Fig. 22)
   When power is OFF, the CONTACT PIECE A must be between the CONTACT PIECE B and the CONTACT PIECE C.
   If the CONTACT PIECE A touches some part, bend and insulate it.
2) When power is ON, the CONTACT PIECE A touches the CONTACT PIECE B.
   When there is no contact, bend the CONTACT PIECE A and adjust properly. (Fig. 23)

8. Shutter scale needle

When exchanging the meter or disassembling the prism frame, mirror box and shutter, check and make necessary adjustment. (Fig. 5 and 24)

How to adjust:
Turn the shutter dial and adjust with SCREW C as shown in Fig. 5 so that the shutter scale needle (green) inside the finder correctly points to the shutter speed figure.

Example: When shutter dial is set at 1/30

1) When the shutter scale needle (green) fails to reach 1/30, turn the SCREW C clockwise. (Tightening direction)
2) When the shutter scale needle (green) exceeds 1/30, turn the SCREW C counterclockwise. (Loosening direction)

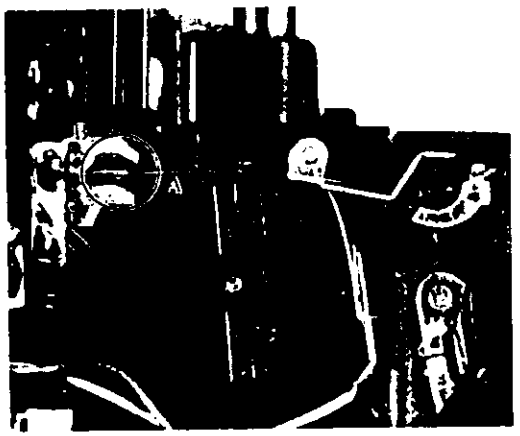


Fig. 22

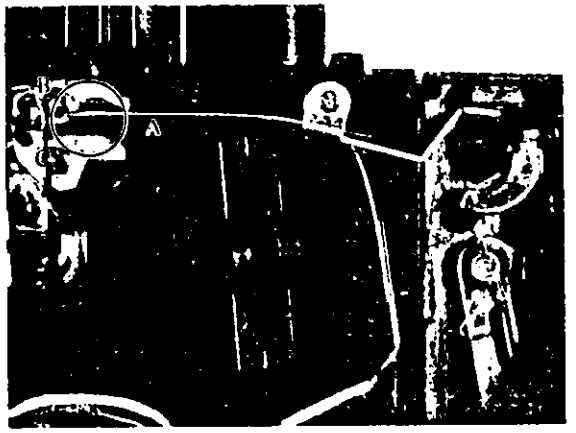


Fig. 23

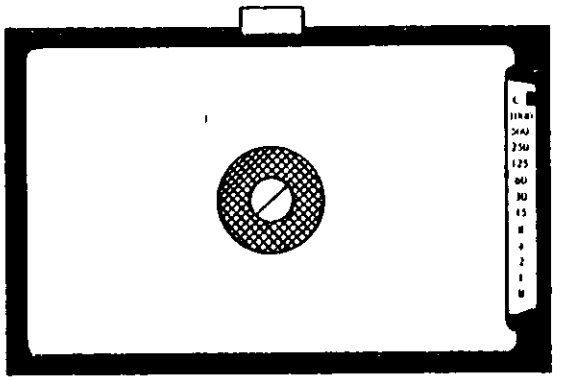


Fig. 24

9. Electric equipment

When changing electric parts and when adjustment is necessary, do as follows.

1) Adjustment of CdS (use the Digital Multi Meter) (Fig. 25)
When adjusting CdS, use the light sources of LV9 and LV15.
   1) Adjust to 27.30 kΩ ±0.7 at VR4 with LV9.
   2) Adjust to 15.58 kΩ ±0.06 at VR3 with LV15.

   NOTE:
   1) When not changing electric parts, absolutely refrain from touching or moving VR3 and VR4 for adjusting CdS.
   2) When adjusting the CdS, detach the soldered portion at the arrow indicated in Fig. 25, and adjust the part indicated by arrow A and B with a digital multi meter.

2) EV adjustment (Fig. 26)
ASA 100, F1.4 diaphragm open: Set at LV9.

How to adjust

1) Mount lens to the main body (Set F stop at 1.4 open).
2) Set ASA to 100.
3) Any shutter speed will do.
4) Set camera to LV9.
5) Look through the finder and adjust with VR2 so that meter needles comes to 1/250 (-1/3).

   NOTE:
   1) Effect EV adjustment, after adjusting CdS.
   2) Effect EV adjustment, after adjusting the shutter scale needle.
   3) Since the light of this camera is measured in open aperture state, use a F1.4 lens.

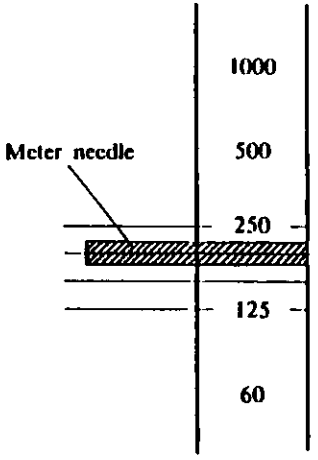
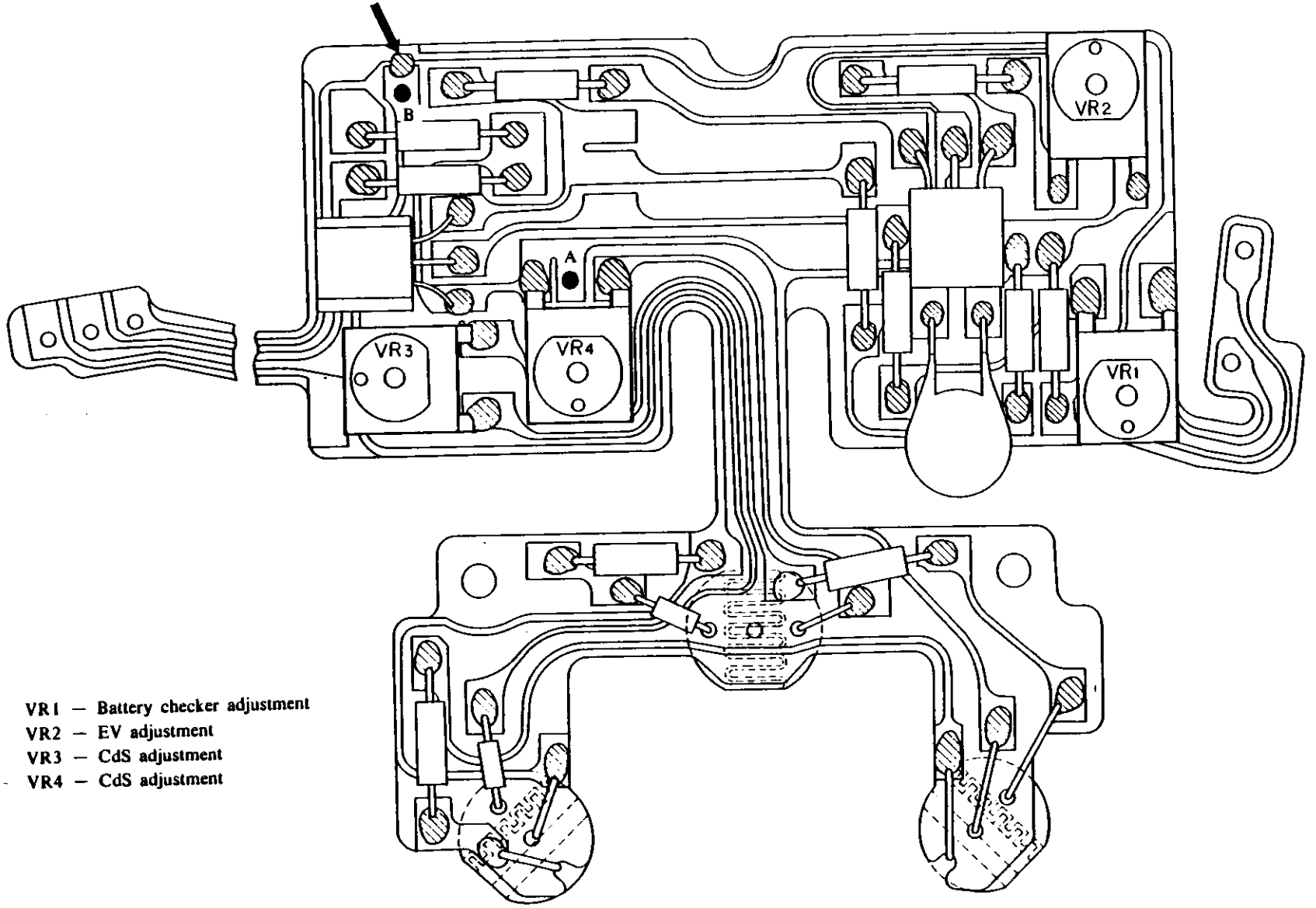


Fig. 26



VR1 — Battery checker adjustment
VR2 — EV adjustment
VR3 — CdS adjustment
VR4 — CdS adjustment

Fig. 25

3) Checker adjustment (Fig. 25)

a) Checker is adjusted at VR1.

b) Adjust checker with VR1, turning the release holder clockwise, so that the meter needle enters the battery checker of Fig. 27.

NOTE:

1) The point where the upper tip of the meter needle and the lower tip of the battery checker mark touch is 3.03V.

2) The indication of the battery used is 1.5V × 2 = 3.0V, but as the actual capacity is 3.1V, checker adjustment is 3.03V and must be adjusted at the position as shown in Fig. 27.

3) When using a new battery, the meter needle stays within the scope of the arrow.

4) The checker may be adjusted regardless of CdS and EV adjustments.

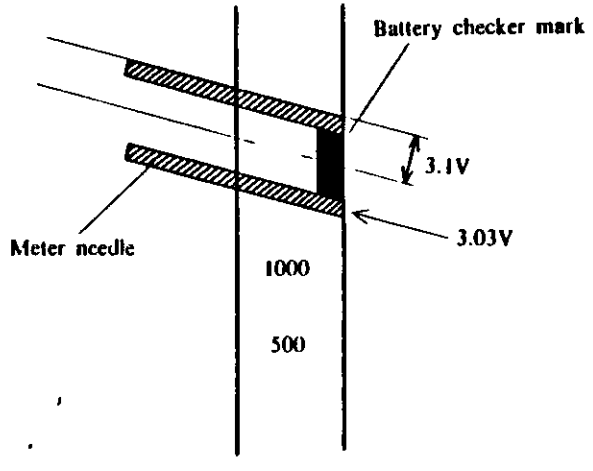


Fig. 27

10. Body back (Fig. 28)

For maintaining the interchangeability of focus, it is necessary to control the length from the mounting plate to the film surface and the parallel position between them.
Length from the lens fixing mount surface to the pressure plate surface (body back) is 45.65 mm ± 0.02.

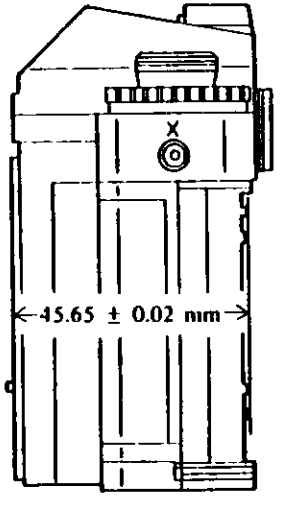
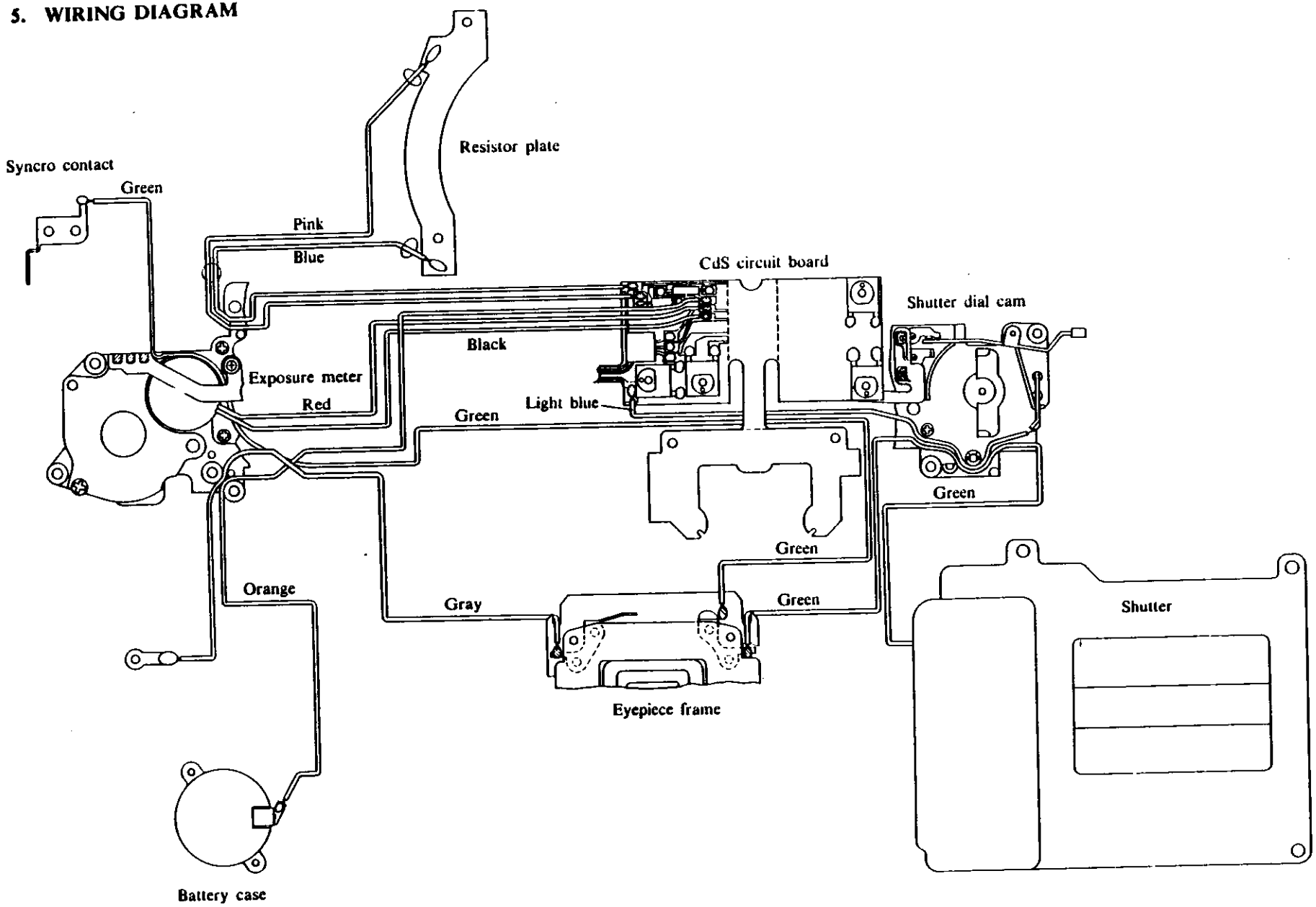
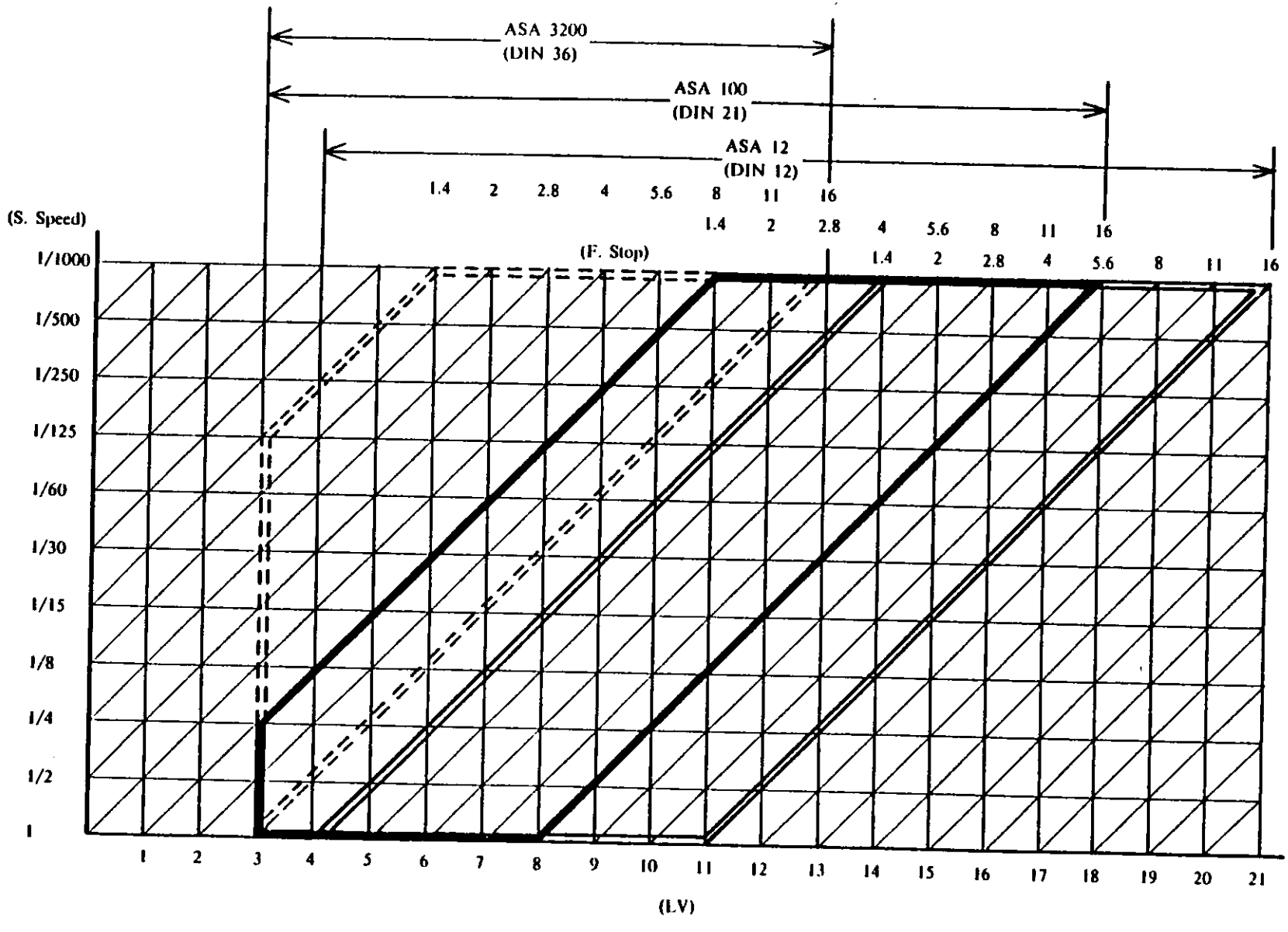


Fig. 28

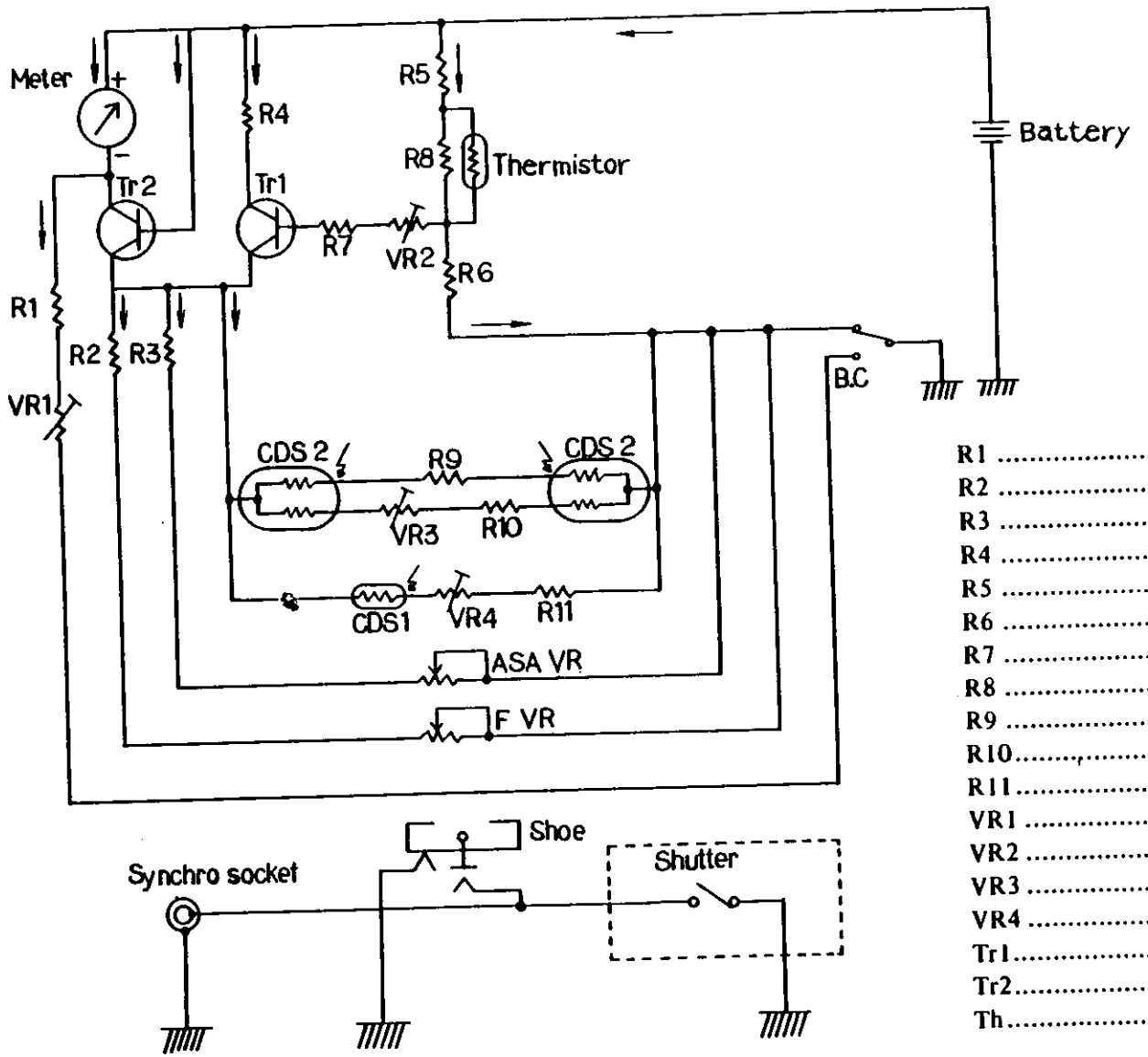
5. WIRING DIAGRAM



6. ASA RANGE


ASA 3200
(DIN 36)
ASA 100
(DIN 21)
ASA 12
(DIN 12)
1.4 2 2.8 4 5.6 8 11 16
1.4 2 2.8 4 5.6 8 11 16
1.4 2 2.8 4 5.6 8 11 16
(S. Speed)
(F. Stop)
1/1000
1/500
1/250
1/125
1/60
1/30
1/15
1/8
1/4
1/2
1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
(LV)

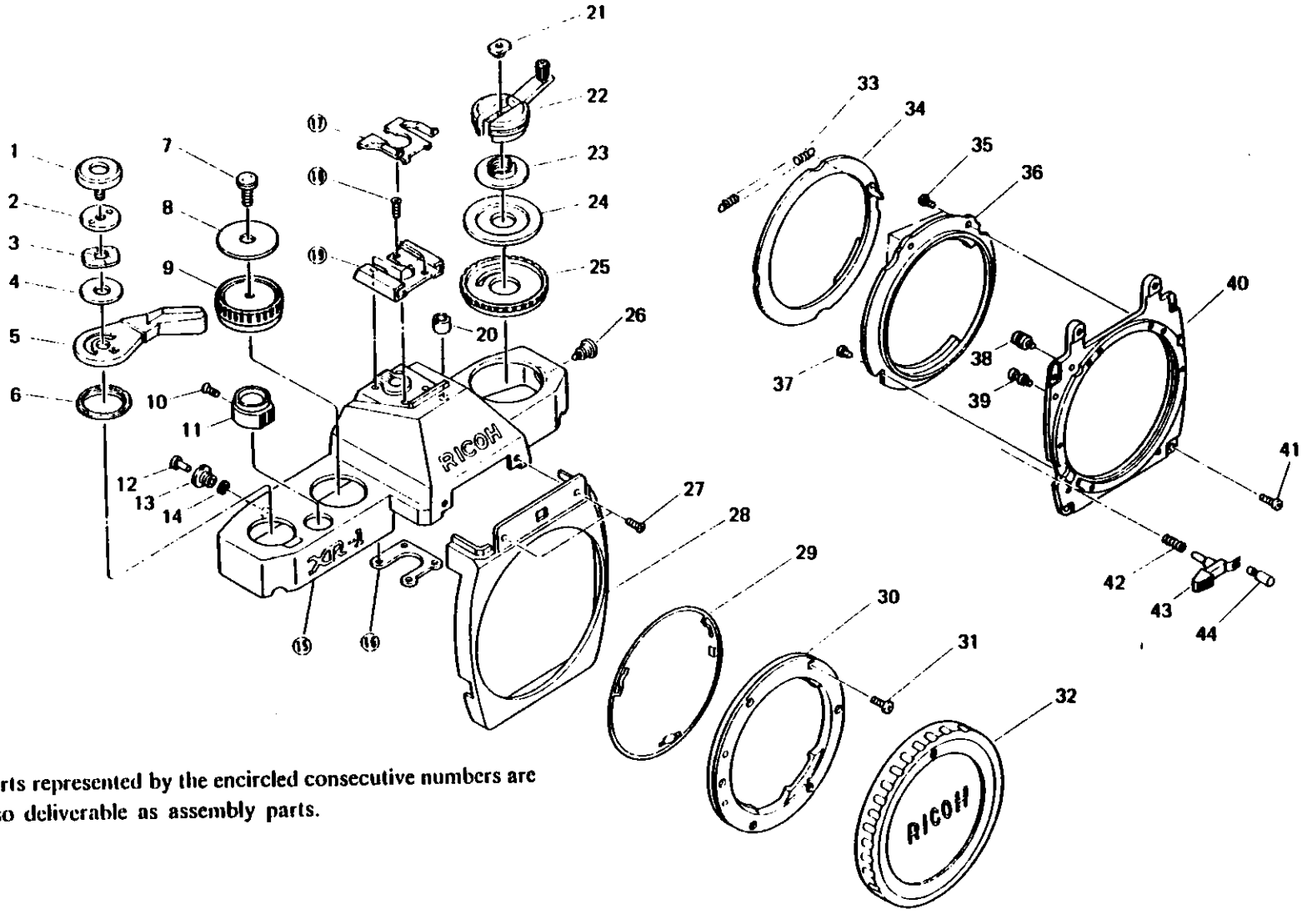
7. SCHEMATIC DIAGRAM



R1	18kΩ
R2	18kΩ
R3	18kΩ
R4	2.4kΩ
R5	62kΩ
R6	130kΩ
R7	120kΩ
R8	33kΩ
R9	24kΩ
R10	24kΩ
R11	24kΩ
VR1	4.7kΩ
VR2	680kΩ
VR3	68kΩ
VR4	47kΩ
Tr1	2SA733
Tr2	2SC945
Th	(15kΩ ± 10%)

8. SKETCH INDEX AND PARTS LIST

A. Top and front parts

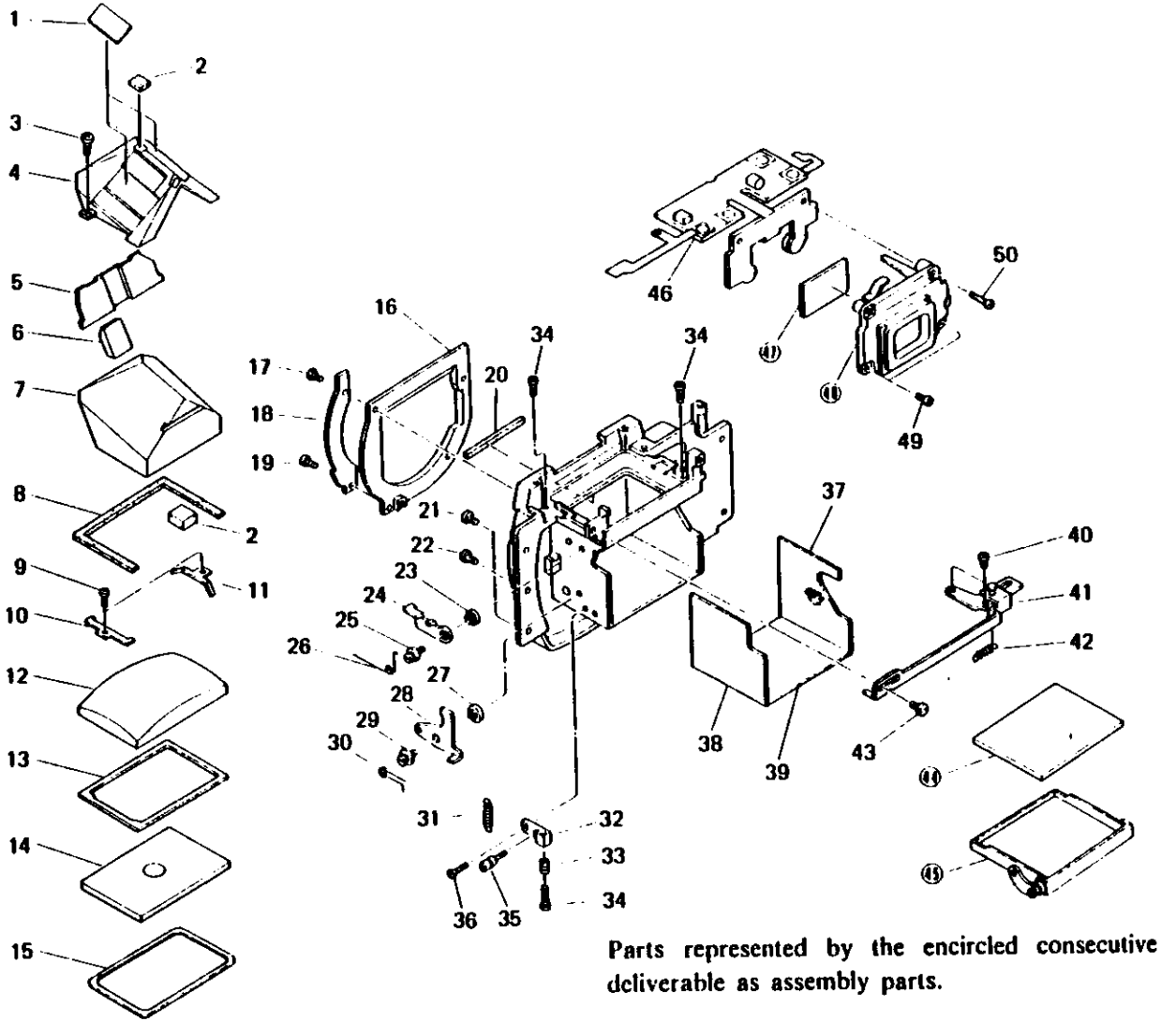


Parts represented by the encircled consecutive numbers are also deliverable as assembly parts.

Sketch No.	Part No.	Description
1	31161113	Screw : film wind up lever
2	31161111	Nut : film wind up lever
3	31161112	Spring washer
4	31161105	Washer
5	31161001	Film wind up lever ass'y
6	31161183	Nut : finder cover
7	31161359	Screw : shutter speed dial
8	31161710	Shutter speed plate
9	31161709	Shutter speed dial
10	31163003	Screw
11	31161295	Release holder
12	31161146	ME button
13	31161147	ME button holder
14	07200012E	Retaining ring
15～19	31161064	Finder cover ass'y
20	31161415	Nut : ASA button
21	31161424	Nut : rewinding disk
22	31161054	Rewinding disk ass'y
23	31161411	Nut : ASA plate
24	31161062	ASA plate
25	31161061	ASA dial
26	31021201	Syncro socket
27	31163004	Screw
28	31161029	Front cover ass'y
29	31161672	Spring : mount
30	31161671	Lens mount
31	02420040F	Screw M2.0 × 4.0
32	31162801	Body cap
33	31161636	F stop spring
34	31161047	F stop ring ass'y
35	02417020W	Screw M1.7 × 2.0
36	31161634	Shield ring : lens mount
37	31161631	Screw
38	31161632	Spring hook B
39	31161630	Stopper B
40	31161621	Base : lens mount
41	02420040W	Screw M2.0 × 4.0
42	31161676	Spring
43	31161028	Lens lock button ass'y

Sketch No.	Part No.	Description
44	31161673	Pin

B. Mirror box and viewfinder parts

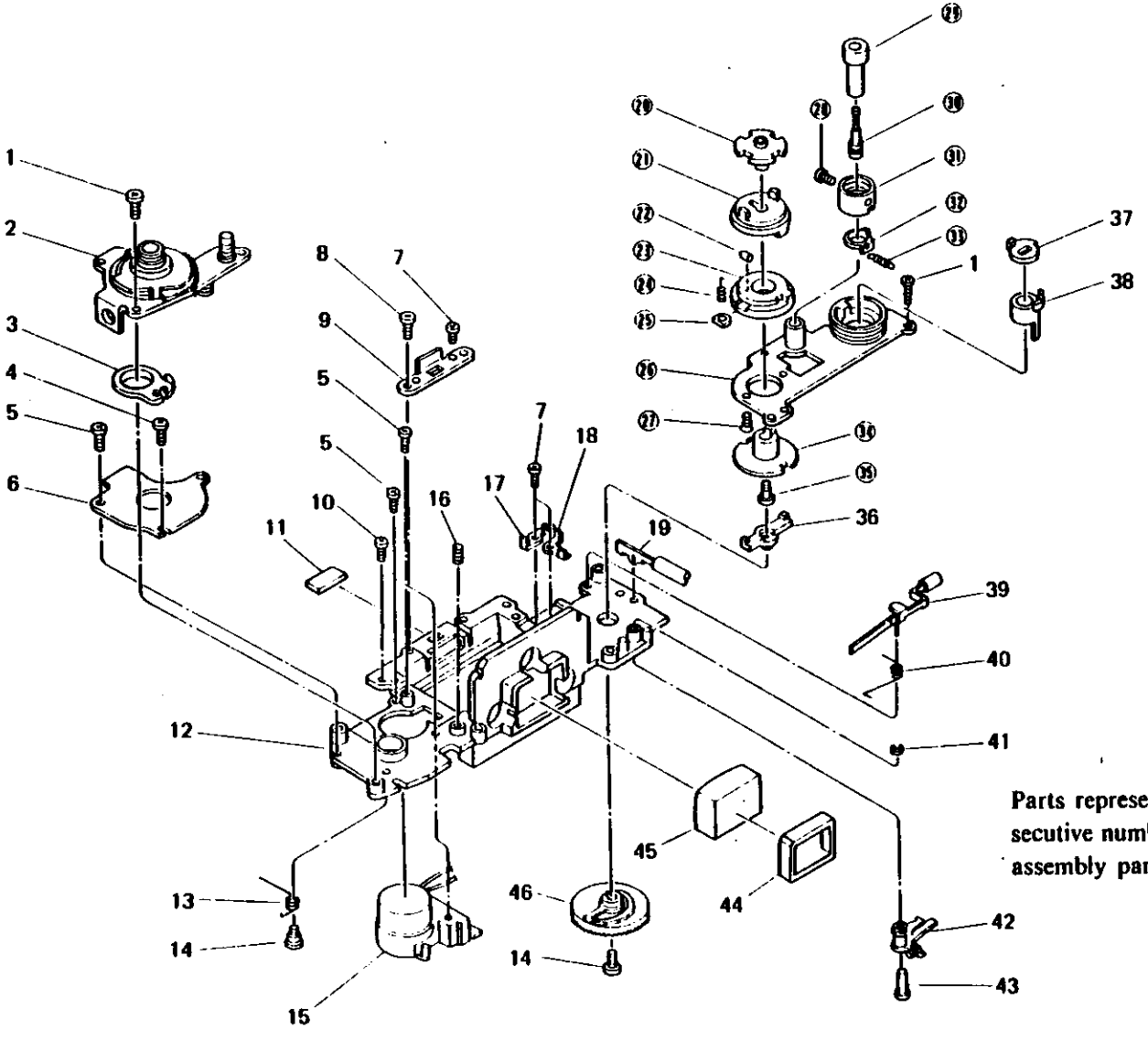


Parts represented by the encircled consecutive numbers are also deliverable as assembly parts.

Sketch No.	Part No.	Description
1	31161862	Adhesive tape
2	31161310	Shield
3	02517035W	Screw M1.7 × 35
4	31161306	Prism cover
5	31161311	F stop prism holder
6	31161312	F stop prism
7	31161347	Prism
8	31161309	Shield : prism
9	02417020W	Screw M1.7 × 2.0
10	31161304	Spring B
11	31161303	Spring A
12	31161348	Condenser lens
13	31161302	Spacer A
14	31161349	Fresnel lens
15	31161595	Spacer B
16	31161635	Shield plate : lens mount
17	02417030Z	Screw M1.7 × 3.0
18	31161076	Resistor plate ass'y
19	31161685	Screw
20	31161582	Shield
21	02520035W	Screw M2.0 × 3.5
22	31161688	Screw
23	31161517	Shaft
24	31161045	Adjusting lever ass'y
25	31161518	Screw
26	31161519	Spring
27	31161603	Shaft
28	31161046	Adjusting arm ass'y
29	31161604	Adjusting screw
30	31161605	Spring
31	31161512	Spring
32	31161606	Adjusting plate
33	31161608	Spring
34	31161609	Screw
35	31161607	Screw
36	02417035W	Screw M1.7 × 3.5
37	31161579	Shield A
38	31161580	Shield B
39	31161581	Shield C

Sketch No.	Part No.	Description
40	02017030W	Screw M1.7 × 3.0
41	31161088	Speed connection lever ass'y
42	31161372	Spring
43	31161371	Screw
(44)	31161504	Mirror
(45)	31161042	Frame ass'y
44～45	31161043	Mirror frame ass'y
46	31161077	CdS circuit board ass'y
47～48	31161071	Eyepiece frame ass'y
49	31161308	Screw
50	02417080Z	Screw M1.7 × 8.0

C. Prism frame and shutter dial parts



Parts represented by the encircled consecutive numbers are also deliverable as assembly parts.

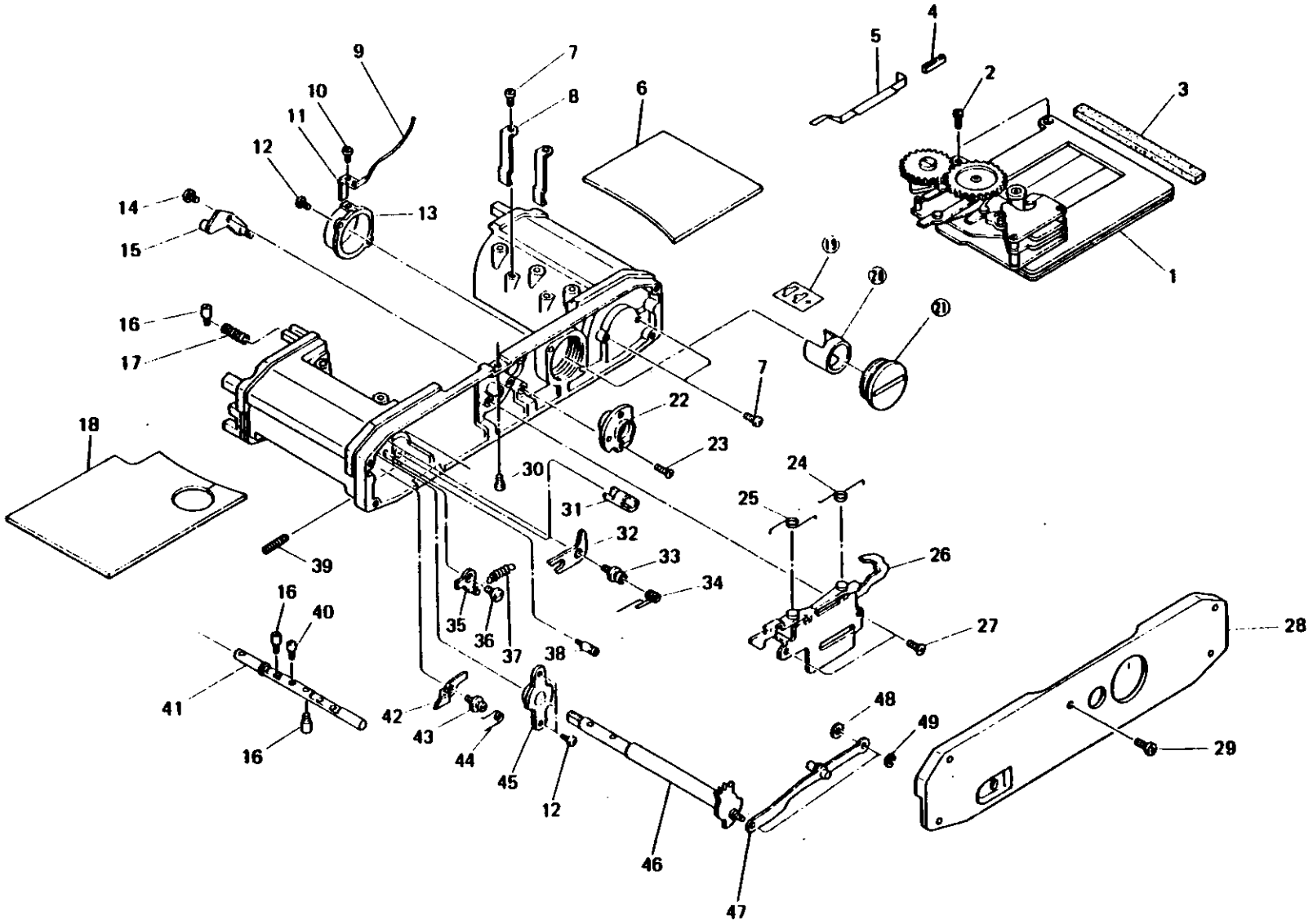
Sketch No.	Part No.	Description
1	02417070Z	Screw M1.7 × 7.0
2	31161015	ASA base plate ass'y
3	31161010	ASA contact ass'y
4	31161680	Screw
5	02514030Z	Screw M1.4 × 3.0
6	31161072	ASA resistor plate ass'y
7	02414025Z	Screw M1.4 × 2.5
8	02417030Z	Screw M1.7 × 3.0
9	31161319	F stop adjusting plate
10	02417030W	Screw M1.7 × 3.0
11	31161315	Mirror B
12	31161301	Prism frame
13	31161428	Spring
14	31161360	Screw
15	31161906	Exposure meter
16	31161427	Spring
17	31161907	Power contact
18	31161908	Checker contact
19	31161078	Spring hook ass'y
(20)	31161355	Nut : shutter dial shaft
(21)	31161708	Click plate : shutter dial
(22)	31161356	Click
(23)	31161352	Bush : shutter dial
(24)	31161357	Spring
(25)	31161353	Nut
(26)	31161066	Shutter dial base plate
(27)	02017035Z	Screw M1.7 × 3.5
(28)	02417020W	Screw M1.7 × 2.0
(29)	31161282	Release button
(30)	31161283	Shaft : release button
(31)	31161293	Shaft : checker cam
(32)	31161292	Checker cam
(33)	31161294	Spring
(34)	31161354	Shutter dial shaft
(35)	31161358	Screw
20～35	31161067	Shutter dial base plate ass'y
36	31161706	Shaft : shutter dial cam
37	31161110	Cam : film wind-up lever
38	31161106	Cam : release lock

Sketch No.	Part No.	Description
39	31161070	Power contact ass'y
40	31161717	Spring
41	31161682	Retaining ring
42	31161050	Shutter dial arm ass'y
43	31161366	Shaft : shutter dial arm
44	31161305	Mask : eyepiece lens
45	31161344	Eyepiece lens
46	31161707	Speed indication cam

Sketch No.	Part No.	Description
1	02520070Z	Screw M2.0 × 7.0
2	31161016	Strap metal
3	31161101	Body
4	31161464	Latch : back cover
5	31161466	Clip cover
6	02414030W	Screw M1.4 × 3.0
7	31161465	Shaft : back cover latch
8	31161469	Screw : film guide
9	31163002	Screw
10	31161488	Shield
11	02517045E	Screw M1.7 × 4.5
12	31161128	Shaft
13	31161127	Stopper : reverse rotation
14	31161129	Spring
15	31161426	Washer
16	31161416	Rewinding shaft
17	02417030Z	Screw M1.7 × 3.0
18	31161188	Lug plate
19	31161467	Spring : back cover lock
20	31161019	Gear B.C ass'y
21	02017055W	Screw M1.7 × 5.5
22	31161109	Bush
23	31161108	Spring
24	02017060Z	Screw M1.7 × 6.0
25	31161024	Winding clutch ass'y
26	31161130	Gear A
27	02017030W	Screw M1.7 × 3.0
28	31161023	Winding shaft base plate ass'y
29	31161122	Spool gear
30	31161022	Holder : spool
31	02414035Z	Screw M1.4 × 35
32	31161145	Spring
33	31161144	Shaft : ME lever
34	31161143	ME lever
35	02417070Z	Screw M1.7 × 7.0
36	31161017	Spool
37	31161142	Bush : sprocket gear
38	02414025Z	Screw M1.4 × 2.5
39	31161137	Pin

Sketch No.	Part No.	Description
40	31161135	Sprocket gear
41	31161140	Spring
42	31161136	Sprocket shaft
43	31161139	Sprocket metal
44	31161138	Sprocket
45	31161141	Screw : sprocket
46	31161053	Film counter ass'y
47	31161489	Shield
(50)	31161006	Pressure plate ass'y
48～51	31161065	Back cover ass'y

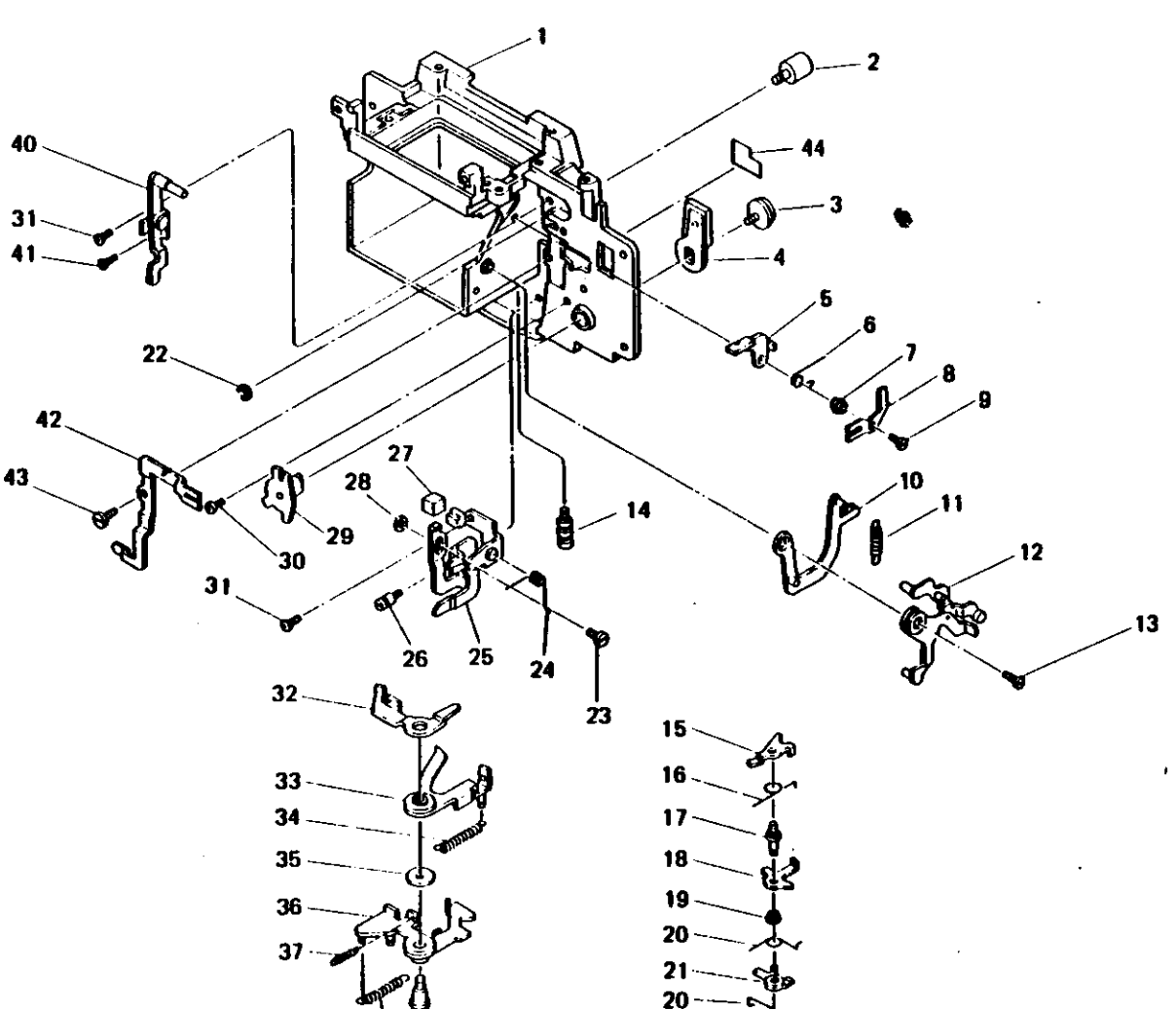
E. Shutter and bottom parts



Sketch No.	Part No.	Description
1	31161701	Shutter ass'y
2	02020030Z	Screw M2.0 × 3.0
3	31163005	Shield
4	31161186	S stopper
5	31161187	Shield plate
6	31161586	Front leather : left
7	02417020W	Screw M1.7 × 2.0
8	31161490	Plate
9	31161929	Orange wire
10	31161687	Screw
11	31161483	Contact : battery case
12	02417025W	Screw M1.7 × 2.5
13	31161482	Battery case
14	31161228	Shaft screw
15	31161025	Set connection lever ass'y
16	31161286	Screw
17	31161285	Spring
18	31161587	Front leather : right
19～21	31161004	Battery cover ass'y
22	31161481	Tripod socket
23	02017035Z	Screw M1.7 × 3.5
24	31161226	Spring
25	31161223	Spring
26	31161027	Shutter-winding connection lever ass'y
27	02017030W	Screw M1.7 × 3.0
28	31161181	Bottom cover
29	31121159	Screw
30	02417030W	Screw M1.7 × 3.0
31	31161233	Light leak prevention
32	31161209	Safety lever
33	31161210	Shaft : safety lever
34	31161211	Spring
35	31161018	Nail lever
36	31161207	Shaft
37	31161208	Spring
38	31161212	Spring hook
39	05020080E	Screw
40	31161589	Screw
41	31161284	Release shaft

Sketch No.	Part No.	Description
42	31161213	Lock lever
43	31161214	Shaft : lock lever
44	31161215	Spring
45	31161201	Push B : wind-up shaft
46	31161021	Wind-up shaft ass'y
47	31161026	Connection lever ass'y
48	31161231	Washer
49	07200012E	Retaining ring

F. Mirror box parts



Sketch No.	Part No.	Description
1	31161069	Mirror box
2	31161577	PV button
3	31131222	Screw : self lever
4	31131026	Self lever ass'y
5	31161044	Adjusting lever right : mirror frame
6	31161515	Spring
7	31161520	S lever bush
8	31161521	S lever
9	31161522	Screw : S lever
10	31161030	Diaphragm lever
11	31161537	Diaphragm spring
12	31161032	Mirror up lever
13	31161539	Screw
14	31161559	Screw : spring hook
15	31161551	PM stop lever
16	31161552	Spring
17	31161553	Shaft : PM stop lever
18	31161554	Lever A
19	31161588	Bush
20	31161555	Spring
21	31161037	Lever B
22	07200015E	Retaining ring
23	31161562	Screw
24	31161573	Spring
25	31161036	PV connection lever ass'y
26	31161576	Screw
27	31161575	Rubber : lever cushion
28	31161563	Washer
29	31161585	Shfat : self timer
30	02517020W	Screw M1.7 × 2.0
31	02417020W	Screw M1.7 × 2.0
32	31161542	PM lever
33	31161038	Mirror connection lever
34	31161550	Spring
35	31161546	Washer
36	31161039	Q set lever
37	31161549	Spring
38	31161578	Spring
39	31161547	Shaft : Q set lever

Sketch No.	Part No.	Description
40	31161033	PV base plate ass'y
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RICOH COMPANY, LTD.
No 14-6, 6-chome, Ginza, Chuo-ku, Tokyo, Japan

RICOH OF AMERICA, INC.
389 Passaic Ave., Fairfield
New Jersey 07006
U. S. A.

RICOH NEDERLAND B.V.
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